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(FILE 'HOME' ENTERED AT 16:56:52 ON 27 MAR 2009)

     FILE 'MEDLINE, CAPLUS, SCISEARCH' ENTERED AT 17:09:17 ON 27 MAR 2009
L1         91912 S MYELOMA
L2           390 S L1 AND TRANSFERRIN
L3           392 S L1 AND (IRON OR FERRIC OR FERROUS)
L4           304 DUP REM L3 (88 DUPLICATES REMOVED)
L5            19 S L4 AND MEDIA
L6            19 DUP REM L5 (0 DUPLICATES REMOVED)
L7            12 S L6 AND PY<=2003
L8             1 S L7 AND CHELATOR
L9             1 S L8 AND TRANSFERRIN
L10            7 S L7 AND TRANSFERRIN
L11            1 S L7 AND TRANSFERRIN AND TROPOLONE

=> d ti 1-12, l7

L7   ANSWER 1 OF 12     MEDLINE on STN
TI   Improved fermentation processes for NS0 cell lines expressing human
     antibodies and glutamine synthetase.

L7   ANSWER 2 OF 12     MEDLINE on STN
TI   [Analysis of causes for anemia in patients with multiple myeloma
     ].
     Analiza przyczyn niedokrwistosci u chorych na szpiczaka mnogiego.

L7   ANSWER 3 OF 12     MEDLINE on STN
TI   The protein hydrolysate, Primatone RL, is a cost-effective multiple growth
     promoter of mammalian cell culture in serum-containing and serum-free
     media and displays anti-apoptosis properties.

L7   ANSWER 4 OF 12     MEDLINE on STN
TI   [The cultivation of mouse and human lymphoid cells on serum-free
     media].
     Kul'tivirovanie limfoidnykh kletok myshi i cheloveka v bessyvorotochnykh
     sredakh.

L7   ANSWER 5 OF 12     MEDLINE on STN
TI   Optimisation of hybridoma cell growth and monoclonal antibody secretion in
     a chemically defined, serum- and protein-free culture medium.

L7   ANSWER 6 OF 12     MEDLINE on STN
TI   Studies on the uptake of 67 Ga and 59 Fe and the binding of transferrin by
     cultured mouse tumour cells.

L7   ANSWER 7 OF 12  CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Iron-containing nanoparticles with double coating and their use
     in diagnosis and therapy

L7   ANSWER 8 OF 12  CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Improved culture method using citrate for mammalian cell in vitro
     proliferation

L7   ANSWER 9 OF 12  CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Chemically defined medium for cultured mammalian cells

L7   ANSWER 10 OF 12  CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Serum-free animal tissue culture medium for mass production of proteins

L7   ANSWER 11 OF 12  CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Iron chelate culture medium additive
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L7 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
TI Synthetic culture media for hybridomas and myelomas

=> d ibib abs 1, , 5, 8, 9, 10, 11, 12
1 ANSWERS ARE AVAILABLE. SPECIFIED ANSWER NUMBER EXCEEDS ANSWER SET SIZE
The answer numbers requested are not in the answer set.
ENTER ANSWER NUMBER OR RANGE (1):1

L11 ANSWER 1 OF 1 MEDLINE on STN
ACCESSION NUMBER: 2003063223 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12573022
TITLE: Improved fermentation processes for NS0 cell lines expressing human antibodies and glutamine synthetase.
AUTHOR: Dempsey Jonathan; Ruddock Steve; Osborne Matthew; Ridley Alison; Sturt Simone; Field Ray
CORPORATE SOURCE: Cambridge Antibody Technology, The Science Park, Melbourn, Cambridgeshire SG8 6JJ, United Kingdom.
SOURCE: Biotechnology progress, (2003 Jan-Feb) Vol. 19, No. 1, pp. 175-8.
Journal code: 8506292. ISSN: 8756-7938.
PUB. COUNTRY: United States
DOCUMENT TYPE: (COMPARATIVE STUDY)
(EVALUATION STUDIES)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200310
ENTRY DATE: Entered STN: 8 Feb 2003
Last Updated on STN: 8 Oct 2003
Entered Medline: 7 Oct 2003

AB To meet the increasing requirement for therapeutic antibodies to conduct clinical trials, an enhanced culture medium and fed-batch process was developed for GS-NS0 cell lines. This process was shown to produce high concentrations of monoclonal antibodies for several cell lines expressing different antibodies. Cells were adapted to growth in a glutamine- and serum-free medium containing bovine serum albumin (BSA), cholesterol, and transferrin. A number of amino acids were found to be depleted during cell culture. The concentrations of these amino acids were increased, and further cell culture analyses were performed. This process of cell growth and analysis was repeated over multiple cycles until no depletion was detected. This resulted in an amino acid supplement that was shown to be generic and enhanced antibody productivity up to 5-fold for the three cell lines tested. Transferrin was replaced using tropolone, a lipophilic iron chelator and ferric ammonium citrate. Cell growth was equivalent to that in transferrin-containing medium over the wide ranges tested. A concentrated feed solution, based on the amino acid supplement and the components of the serum- and protein-free supplements, was formulated. Addition of this feed in response to metabolic requirements resulted in a harvest titer a further 2-fold higher than the enhanced culture medium. Harvest antibody titers of up to 600 mg/L were achieved for three cell lines expressing different antibodies, representing an increase of 10-fold over the starting concentrations.

=> d ibib abs 1, 5, 8, 9, 10, 11, 12 17

L7 ANSWER 1 OF 12 MEDLINE on STN
ACCESSION NUMBER: 2003063223 MEDLINE

DOCUMENT NUMBER: PubMed ID: 12573022
TITLE: Improved fermentation processes for NS0 cell lines expressing human antibodies and glutamine synthetase.
AUTHOR: Dempsey Jonathan; Ruddock Steve; Osborne Matthew; Ridley Alison; Sturt Simone; Field Ray
CORPORATE SOURCE: Cambridge Antibody Technology, The Science Park, Melbourn, Cambridgeshire SG8 6JJ, United Kingdom.
SOURCE: Biotechnology progress, (2003 Jan-Feb) Vol. 19, No. 1, pp. 175-8.
Journal code: 8506292. ISSN: 8756-7938.
PUB. COUNTRY: United States
DOCUMENT TYPE: (COMPARATIVE STUDY)
(EVALUATION STUDIES)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200310
ENTRY DATE: Entered STN: 8 Feb 2003
Last Updated on STN: 8 Oct 2003
Entered Medline: 7 Oct 2003

AB To meet the increasing requirement for therapeutic antibodies to conduct clinical trials, an enhanced culture medium and fed-batch process was developed for GS-NS0 cell lines. This process was shown to produce high concentrations of monoclonal antibodies for several cell lines expressing different antibodies. Cells were adapted to growth in a glutamine- and serum-free medium containing bovine serum albumin (BSA), cholesterol, and transferrin. A number of amino acids were found to be depleted during cell culture. The concentrations of these amino acids were increased, and further cell culture analyses were performed. This process of cell growth and analysis was repeated over multiple cycles until no depletion was detected. This resulted in an amino acid supplement that was shown to be generic and enhanced antibody productivity up to 5-fold for the three cell lines tested. Transferrin was replaced using tropolone, a lipophilic iron chelator and ferric ammonium citrate. Cell growth was equivalent to that in transferrin-containing medium over the wide ranges tested. A concentrated feed solution, based on the amino acid supplement and the components of the serum- and protein-free supplements, was formulated. Addition of this feed in response to metabolic requirements resulted in a harvest titer a further 2-fold higher than the enhanced culture medium. Harvest antibody titers of up to 600 mg/L were achieved for three cell lines expressing different antibodies, representing an increase of 10-fold over the starting concentrations.

L7 ANSWER 5 OF 12 MEDLINE on STN
ACCESSION NUMBER: 1989124403 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2644356
TITLE: Optimisation of hybridoma cell growth and monoclonal antibody secretion in a chemically defined, serum- and protein-free culture medium.
AUTHOR: Schneider Y J
CORPORATE SOURCE: Universite Catholique de Louvain, Departement de Biochimie et de Biologie Cellulaire, Brussels, Belgium.
SOURCE: Journal of immunological methods, (1989 Jan 6) Vol. 116, No. 1, pp. 65-77.
Journal code: 1305440. ISSN: 0022-1759.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198903
ENTRY DATE: Entered STN: 8 Mar 1990

Last Updated on STN: 6 Feb 1998
Entered Medline: 21 Mar 1989

AB Monoclonal antibodies (MAbs), for human use require chemical and biological purity. The best approach seems in vitro cultivation in a serum-, protein-free medium. A basal defined culture medium has been developed to sustain optimal hybridoma cell growth and MAb secretion. It consists of Iscove's Dulbecco's modified, Eagle's, Ham's F12 and NCTC 135 media in a 5:5:1 mixture (v/v/v), to which glucose is added to reach a final concentration of 25 mM, glutamine to 4-6 mM, 2-mercaptoethanol to 50 microM, Pluronic F68 to 0.01-0.1% (w/v), Hepes to 25 mM and NaHCO3 to 3 g/l. Hybridoma cells, derived from Sp 2/0 myeloma and secreting a MAb to a human milk fat globule membrane-associated high molecular weight glycoprotein, were cloned in this medium containing 1% (v/v) fetal calf serum and then sequentially adapted in serum-free medium further supplemented with transferrin and insulin, both at 10 micrograms/ml. Clones producing immunoreactive MAbs secrete a mean of 50 micrograms IgG/ml, i.e., ca. 80% of the concentration reached in Dulbecco's modified Eagle's medium containing 10% serum. When cells were cultured in spinner flasks with a semi-continuous mode of cultivation (with a daily removal of 20% of the volume and its replacement by fresh culture medium), in serum-free medium further supplemented with 10 nM estradiol, a mixture of trace elements and albumin (at 30 micrograms/ml) complexed to linoleic acid, MAb secretion reached 100 micrograms/ml and became equal or higher to that obtained in serum-containing medium. MAb secretion was not decreased and was even significantly increased during the growth phase, when transferrin was replaced by another iron source, i.e., ferric citrate at 500 microM associated with 20 microM ascorbic acid. Finally, deletion of insulin and of albumin-linoleic acid did not affect significantly cell density nor MAb secretion. In conclusion, it appears from this study that semi-continuous cultivation in spinner flasks of hybridoma cells, after cloning and progressive adaptation, in a chemically defined, serum- and protein-free medium, permitted MAb secretion to be increased to a mean of 144 micrograms/ml, i.e., multiplied by a factor of ca. 1.5 compared to culture of these cells in serum-containing medium under the same conditions and by a factor of ca. 2.4 compared to cultivation in serum-containing medium in flasks.

L7 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:702847 CAPLUS
DOCUMENT NUMBER: 139:226837
TITLE: Improved culture method using citrate for mammalian cell in vitro proliferation
INVENTOR(S): Urlich, Balent; Horst, Everhad; Bartort, Schutzperky
PATENT ASSIGNEE(S): F. Hoffmann-La Roche & Co. AG, Switz.
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003250533	A	20030909	JP 2003-58803	20030305 <--
CA 2417689	A1	20030905	CA 2003-2417689	20030130 <--
CA 2417689	C	20060509		
MX 2003001487	A	20050908	MX 2003-1487	20030218
IN 2003MA00155	A	20071221	IN 2003-MA155	20030227
US 20030175951	A1	20030918	US 2003-376392	20030303 <--
US 7390660	B2	20080624		

EP 1342780	A1	20030910	EP 2003-4806	20030304	<--
EP 1342780	B1	20050907			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK					
AT 304047	T	20050915	AT 2003-4806	20030304	
ES 2248657	T3	20060316	ES 2003-4806	20030304	
CN 1442478	A	20030917	CN 2003-107060	20030305	<--
CN 100398640	C	20080702			

PRIORITY APPLN. INFO.: EP 2002-4366 A 20020305

AB An improved culture method for mammalian cell in vitro proliferation is provided, with which the glucose consumption and/or lactate formation upon mammalian cell proliferation are simply reduced. The method is characterized in that the cell culture is performed in the presence of a bicarbonic acid or tricarbonic acid or its salt (e.g., citric acid, citrate) of ca. 1-50mmol/l. For example, free citric acid or citrate (e.g., alkali metal salt) of this quantity was added to the culture medium rather than citric acid in the form of a chelate complex with iron or other transition metal ion.

L7 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:658225 CAPLUS
DOCUMENT NUMBER: 137:184584
TITLE: Chemically defined medium for cultured mammalian cells
INVENTOR(S): Lee, Chichang; Ly, Celia; Moore, Gordon; Perkinson, Robert
PATENT ASSIGNEE(S): Centocor, Inc., USA
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
WO 2002066603	A2	20020829	WO 2002-US3274	20020205	<--
WO 2002066603	A3	20021219			
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
CA 2438148	A1	20020829	CA 2002-2438148	20020205	<--
AU 2002243824	A1	20020904	AU 2002-243824	20020205	<--
US 20030096402	A1	20030522	US 2002-67382	20020205	<--
US 6900056	B2	20050531			
EP 1360314	A2	20031112	EP 2002-709335	20020205	<--
EP 1360314	B1	20090114			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
JP 2005505240	T	20050224	JP 2002-566310	20020205	
AT 420945	T	20090115	AT 2002-709335	20020205	
JP 2008178419	A	20080807	JP 2008-77561	20080325	

PRIORITY APPLN. INFO.: US 2001-268849P P 20010215
JP 2002-566310 A3 20020205
WO 2002-US3274 W 20020205

AB The present invention relates to methods and compns. for chemical defined

media for growth of mammalian cells for production of com. useful amts. of expressed proteins.
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1996:290368 CAPLUS
DOCUMENT NUMBER: 124:341059
ORIGINAL REFERENCE NO.: 124:63353a,63356a
TITLE: Serum-free animal tissue culture medium for mass production of proteins
INVENTOR(S): Sawada, Hidekazu; Ito, Takashi; Maejima, Kazutaka
PATENT ASSIGNEE(S): Takeda Chemical Industries Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE	
JP 08070859	A	19960319	JP 1995-150683		19950616	<--
PRIORITY APPLN. INFO.:			JP 1995-150683	A	19950616	
			JP 1994-144172		19940627	

AB A serum-free animal tissue culture medium composition containing inorg. or organic Fe compds., cyclodextrin, non-ionic surfactants, and, optionally, insulin, ethanolamine, and selenites is provided. The medium may supplemented with dexamethasone, protein hydrolyzates, and amino acids. Production of t-gD-IL-2, a fusion protein of herpes simplex virus (HSV) type 1 glycoprotein D (t-gD) and human interleukin-2 (IL-2), by cultivating mouse myeloma cell strain Sp2/0-22-32-34 in this medium was demonstrated.

L7 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1993:512962 CAPLUS
DOCUMENT NUMBER: 119:112962
ORIGINAL REFERENCE NO.: 119:20212h,20213a
TITLE: Iron chelate culture medium additive
INVENTOR(S): Suhr-Jessen, Peter Bernt
PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.
SOURCE: PCT Int. Appl., 15 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE	
WO 9300423	A1	19930107	WO 1992-DK190		19920618	<--
W: AU, CA, JP, US						
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE						
CA 2111984	A1	19930107	CA 1992-2111984		19920618	<--
AU 9221968	A	19930125	AU 1992-21968		19920618	<--
EP 593539	A1	19940427	EP 1992-913614		19920618	<--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE						
JP 06508523	T	19940929	JP 1992-501299		19920618	<--
PRIORITY APPLN. INFO.:			EP 1991-610054	A	19910621	
			WO 1992-DK190	A	19920618	

AB A culture medium additive comprises a chelate of a soluble Fe salt and an alkali metal or alkaline earth metal citrate. The additive is a suitable Fe source for serum-free or protein-free culture media. BHK cells, CHO cells, SP2/0 myeloma cells, and SP2/0-based hybridoma cells were cultivated in serum-free nutrient media supplemented with Na citrate-Fe chloride chelate.
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1989:455870 CAPLUS
DOCUMENT NUMBER: 111:55870
ORIGINAL REFERENCE NO.: 111:9493a,9496a
TITLE: Synthetic culture media for hybridomas and myelomas
INVENTOR(S): Kovar, Jan; Franek, Frantisek
PATENT ASSIGNEE(S): Ceskoslovenska Akademie Ved, Czech.
SOURCE: Fr. Demande, 9 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE	
FR 2604727	A1	19880408	FR 1987-13651		19871002	<--
FR 2604727	B1	19900518				
GB 2196348	B	19900704	GB 1987-22473		19870924	<--
PRIORITY APPLN. INFO.:			CS 1986-7158	A	19861003	

AB Synthetic media for culturing of hybridomas and myelomas contain iron salts. An RPMI medium containing, in addition to salts, ethanolamine, ascorbic acid, and hydrocortisone, ferric citrate 5 + 10-4M was prepared and hybridoma PLV-01 was cultured in it. Growth in this medium was comparable to growth in medium SFH (without linoleic acid and albumin) of Kovar and Franek (Meth. Enzymol. (1986) 121:277).
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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